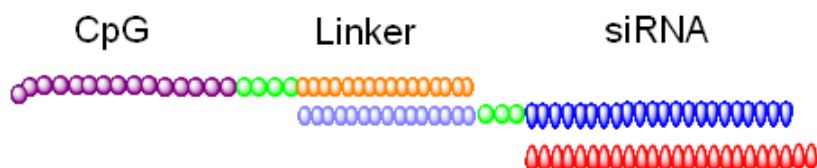


## siRNA for the Treatment of Cancer via Inhibition of Stat3



### DESCRIPTION

This technology is a targeted construct composing a Stat3 inhibiting siRNA chemically linked to a CpG sequence. Signal Transducer and Activator of Transcription 3 (Stat3) is constitutively activated at high frequency (50 to 100%)

in a diverse selection of cancers. It has been shown that blocking Stat3 in tumor cells induces tumor cell apoptosis, inhibits tumor angiogenesis, abrogates metastasis and activates antitumor immune responses. This innovative approach can also be adapted for gene targeting in human cells, including TLR9-positive tumor cells, such as acute myeloid leukemia (AML), multiple myeloma (MM) and B cell lymphoma. In contrast to the naked siRNA, siRNA linked with a CpG moiety is rapidly internalized by target cells. It is for these reasons that the following therapeutic construct has been created, to inhibit the activity of Stat3 in a variety of cancer cells.

### KEY ASPECTS

- *in vivo* data is available upon request
- The linker chemistry incorporated into this construct allows for multiple moieties (such as oligoribonucleotides, oligodeoxynucleotides, oligonucleotides or aptamers) to be easily attached further diversifying the functionality of this therapeutic
- The siRNA moiety is a 25/27mer Dicer substrate

### INTELLECTUAL PROPERTY

Title	US Patent Application	Filed
Method and Compositions for the Treatment of Cancer and other Diseases	11/966,423	12/28/2007
Method and Compositions for the Treatment of Cancer and other Diseases	61/241/764	9/11/2009

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